DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-009154

Address: 333 Burma Road **Date Inspected:** 22-Sep-2009

City: Oakland, CA 94607

OSM Arrival Time: 645 **Project Name:** SAS Superstructure **OSM Departure Time:** 1845 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: CWI Present: Yes No Xu Xian Ping **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A Yes N/A **Electrode to specification:** No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component: OBG & TOWER Components**

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance (QA) Inspector, Sandeep Kumar was present during the times noted above for observations relative to the work being performed.

BAY 1

This QA Inspector observed the following work in progress:

FCAW process welding of weld joint #001 located on Cross Beam CB202C – 015. Welder is identified as 219188. ZPMC QC is identified as Tian Lei. The welding variables recorded by QC appeared to comply with the WPS – B -T - 2231 - B - U2 - F.

BAY 2

This QA Inspector observed the following work in progress:

FCAW process welding of weld joint #047 located on Floor Beam FB3098 – 001. Welder is identified as 206358.

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ZPMC QC is identified as Yang Qing Feng. The welding variables recorded by QC appeared to comply with the WPS - B - T - 2232 - Tc - U4b - F.

FCAW process welding of weld joint #055 located on Floor Beam FB3078 – 001. Welder is identified as 062438. ZPMC QC is identified as Yang Qing Feng. The welding variables recorded by QC appeared to comply with the WPS - B - T - 2132 - 3.

FCAW process welding of weld joint #022 located on Floor Beam FB3098 – 001. Welder is identified as 206358. ZPMC QC is identified as Yang Qing Feng. The welding variables recorded by QC appeared to comply with the WPS - B - T - 2133.

FCAW process welding of weld joint #032 located on Floor Beam FB3078 – 001. Welder is identified as 062438. ZPMC QC is identified as Yang Qing Feng. The welding variables recorded by QC appeared to comply with the WPS - B - T - 2133.

BAY3

This QA Inspector observed the following work in progress:

FCAW process welding of weld joint #012 located on Longitudinal Diaphragm LD005 – 012. Welder is identified as 051356. ZPMC QC is identified as Yin Dong Hai. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2231 – Tc – P4 – F.

FCAW process welding of weld joint #005 located on Longitudinal Diaphragm LD004 – 058. Welder is identified as 055491. ZPMC QC is identified as Yin Dong Hai. The welding variables recorded by QC appeared to comply with the WPS - B - T - 2132 - 3.

FCAW process welding of weld joint #009 located on Longitudinal Diaphragm LD005 – 011. Welder is identified as 051356. ZPMC QC is identified as Yin Dong Hai. The welding variables recorded by QC appeared to comply with the WPS -B - T - 2133.

FCAW process welding of weld joint #012 located on Longitudinal Diaphragm LD009 – 009. Welder is identified as 055491. ZPMC QC is identified as Yin Dong Hai. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2231 – Tc – P4 – F.

BAY 5

This QA Inspector observed the following work in progress:

FCAW process welding of weld joint #001 located on Traveler Rail 10TR3 – 019. Welder is identified as 058174. ZPMC QC is identified as Zhong Chong Biao. The welding variables recorded by QC appeared to comply with the WPS - B - T - 2231 - B - U2 - F.

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FCAW process welding of weld joint #001 located on Traveler Rail Bracket TR2A – PP066. Welder is identified as 053742. ZPMC QC is identified as Zhong Chong Biao. The welding variables recorded by QC appeared to comply with the WPS -B - T - 2232 - Tc - U4c - F.

FCAW process welding of weld joint #004 located on Traveler Rail 10TR2 – 016. Welder is identified as 068858. ZPMC QC is identified as Zhong Chong Biao. The welding variables recorded by QC appeared to comply with the WPS - B - T - 2231 - B - U2 - F.

FCAW process welding of weld joint #001 located on Traveler Rail Bracket TR2A – PP058. Welder is identified as 053742. ZPMC QC is identified as Zhong Chong Biao. The welding variables recorded by QC appeared to comply with the WPS -B - T - 2232 - Tc - U4c - F.

FCAW process welding of weld joint #002 located on Traveler Rail 11TR1 – 014. Welder is identified as 215185. ZPMC QC is identified as Zhong Chong Biao. The welding variables recorded by QC appeared to comply with the WPS - B - T - 2231 - B - U2 - F.

BAY 6

Magnetic Particle Testing

This QA inspector performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. The members are identified as TOWER Components. The weld designations reviewed are as follows:

WEST TOWER – 135 M DIAPHRAGM – GREEN TAG # 009245

WSD1 – DPSA4 – 6A/B – 001; 004; 026

WSD1 - SA4 - 50 - 004;005

WSD1 - DPSA4 - 6B/B - 007; 011; 018; 019; 027

WEST TOWER – 139 M DIAPHRAGM – GREEN TAG # 009246

WSD1 - DPSA4 - 13A/B - 004;007

WSD1 - SA4 - 61 - 003;007

WSD1 – DPSA4 – 13B/B – 001; 002; 009; 014; 018

WEST TOWER - 143 M DIAPHRAGM - GREEN TAG # 009247

WSD1 - DPSA4 - 12A/B - 007;008

WSD1 - SA4 - 60 - 003;008

WSD1 – DPSA4 – 12B/B – 002; 010; 019; 026; 027

This QA Inspector observed the following work in progress:

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TOWER

SMAW process welding of weld joint #7B located on WD1 – A305 – 65M – 4. Welder is identified as 048659. ZPMC QC is identified as Su Zhen Rong. The welding variables recorded by QC appeared to comply with the WPS - 485 - SMAW - 2G (2F) FCM - Repair - 1.

SMAW process welding of weld joint #10B located on WD1 – A305 – 65M – 1. Welder is identified as 067707. ZPMC QC is identified as Su Zhen Rong. The welding variables recorded by QC appeared to comply with the WPS – 345 – SMAW – 2G (2F) FCM – Repair.

SMAW process welding of weld joint #1B located on WD1 – A305 – 77M – 4. Welder is identified as 049769. ZPMC QC is identified as Su Zhen Rong. The welding variables recorded by QC appeared to comply with the WPS - 485 - SMAW - 2G (2F) FCM - Repair - 1.

SMAW process welding of weld joint #1A located on WD1 – A305 – 65M – 1. Welder is identified as 067707. ZPMC QC is identified as Su Zhen Rong. The welding variables recorded by QC appeared to comply with the WPS - 485 - SMAW - 2G (2F) FCM - Repair - 1.

Cross Beam - 9

This QA Inspector observed the following work in progress:

FCAW process welding of weld joint #025 located on Floor Beam FB205 – 027. Welder is identified as 048625. ZPMC QC is identified as Liu Chuan Gang. The welding variables recorded by QC appeared to comply with the WPS - B - T - 2232 - Tc - U4b - F.

FCAW process welding of weld joint #002 located on Cross Beam CB202A – 009. Welder is identified as 220688. ZPMC QC is identified as Liu Chuan Gang. The welding variables recorded by QC appeared to comply with the WPS - B - T - 2232 - Tc - U4b - F.

This QA Inspector observed the following work in progress:

Witness of Magnetic Particle Testing

This QA inspector Witnessed MT performed by ABF Quality Assurance personnel of 100% of the area previously tested and accepted by ZPMC Quality Control personnel. The member is identified as OBG Component. The component designation identified as:

Deck panel - DP3039B

This QA Inspector observed the following work in progress:

WELD EXCAVATION

Weld excavation of weld joint #1B by carbon arc gouging after Ultrasonic Testing (UT) Reject by ZPMC technician located on L-Connection Strut Plate ND1 – SA658 – 77M – 8. ZPMC QC is identified as Zhao Chen Sun. The process is carrying out as per the CWR no: T-CWR 248.

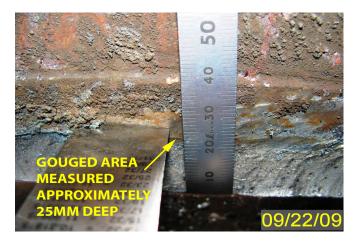
For further details see the attached pictures:

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract

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documents.







Summary of Conversations:

No Relevant Conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang - 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Kumar,Sandeep	Quality Assurance Inspector
Reviewed By:	Prue,Erik	QA Reviewer